

CLAIMS:

What is claimed is:

1. A method for making a flexible multi-pack package containing a product, said method comprising the steps of:

a) providing a continuous sheet of film having graphics printed in an orientation such that when the sheet of film is fed through a vertical form, fill and seal machine, the graphics appear sideways;

b) feeding said film into said vertical form, fill and seal machine;

c) directing said film around a forming tube;

d) forming a back seal on the film, thereby creating a tube of film around the forming tube;

e) forming a first transverse seal across the tube of film;

f) cutting across the first transverse seal;

g) introducing a product a first time into the tube of film;

h) forming a second transverse seal above the first transverse seal, thereby forming a first bag oriented sideways;

i) perforating said second transverse seal;

j) introducing the product a second time into the tube of film; and

k) forming a third transverse seal above the second transverse seal, thereby forming a second bag oriented sideways;

thereby forming said multi-pack package comprising said first and second bags

20 removably attached to each other by said second transverse seal, wherein said graphics are properly viewable when the first bag and second bag are horizontally adjacent to each other such that the first, second and third transverse seals are vertically oriented.

2. The method for making a flexible multi-pack package of Claim 1 wherein said graphics span both the first bag and the second bag.

3. The method for making a flexible multi-pack package of Claim 1 wherein said perforating of step i) imparts a series of perforations aligned along a perforation path, wherein each perforation has a wide base for catching an errant leading tear and at least one apex incision connecting the wide base to the perforation path.

4. The method for making a flexible multi-pack package of Claim 1 wherein said continuous sheet of film comprises at least one layer selected from the group consisting of polypropylene, polyester, polyethylene, paper, polyolefin extrusions, and adhesive laminates, or any combinations thereof.

5. The method for making a flexible multi-pack package of Claim 4 wherein said film comprises an outer layer of biaxially oriented high-density polyethylene that is most highly oriented in the transverse direction when fed into a vertical form, fill and seal machine.

6. The method for making a flexible multi-pack package of Claim 1 wherein said sheet of film comprises one or more outer layers having at least one slit-score for guiding tears through the double-bag package.

7. The method for making a flexible multi-pack package of Claim 1 further comprising the step of:

l) cutting across the third transverse seal;

wherein the multi-pack package formed is a double-bag package.

8. The method for making a flexible multi-pack package of Claim 1 further comprising the steps of:

l) perforating said third transverse seal;

m) repeatedly introducing the product into the tube of film again, forming another

5 transverse seal above the previous seal, and perforating said another transverse seal until a second to last bag is formed;

n) introducing the product a final time into the tube of film;

o) forming a final transverse seal above the transverse seals made in steps a) through n), thereby forming a final bag oriented sideways; and

10 p) cutting across the final transverse seal.

9. A flexible multi-pack package comprising:

a first bag having a first graphics display, a first transverse seal, and a second transverse seal, wherein the first transverse seal and the second transverse seal are on opposite sides of the first bag; and

5 a second bag having a second graphics display and a third transverse seal, wherein said second bag shares the second transverse seal with the first bag and is flexibly attached to said first bag by the second transverse seal, and further wherein the second transverse seal and the third transverse seal are on opposite sides of the second bag; wherein the first, second and third transverse seals are parallel to each other, and further
10 wherein the first graphics display and the second graphics display are oriented in the same direction and are properly viewed when the first bag and the second bag are horizontally adjacent to each other.

10. The flexible multi-pack package of Claim 9 wherein the first graphics display and the second graphics display form a continuous graphics display that spans the first bag and the second bag.

11. The flexible multi-pack package of Claim 9 wherein said second transverse seal has a plurality of perforations along a perforation path.

12. The flexible multi-pack package of Claim 11 wherein each perforation has a wide base for catching an errant leading tear and at least one apex incision connecting the wide base to the perforation path.
13. The flexible multi-pack package of Claim 9 wherein the first and second bags comprise at least one layer selected from the group consisting of polypropylene, polyester, polyethylene, paper, polyolefin extrusions, and adhesive laminates, or any combinations thereof.
14. The flexible multi-pack package of Claim 13 wherein said first and second bags comprise an outer layer of biaxially oriented high-density polyethylene that is most highly oriented in a direction perpendicular to the first, second and third transverse seals.
15. The flexible multi-pack package of Claim 9 further comprising at least one score line for opening the first and second bags, wherein said at least one score line spans the first and second bags.
16. The flexible multi-pack package of Claim 9 wherein the first bag and the second bag each further comprises a bottom gusset.
17. The flexible multi-pack package of Claim 9 wherein the first bag and the second bag each further comprises a flat bottom.

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18. A method for perforating flexible films to create perforations that offer reliable directional separation, said method comprising the steps of:

a) providing a film;

b) penetrating said film to create a plurality of perforation patterns along a

5 perforation path in said film;

wherein each one of said perforation patterns has a wide base for catching an errant leading tear and at least one apex incision connecting the wide base to the perforation path.

19. The method for perforating of Claim 18 wherein each one of said perforation patterns comprises a triangular shape.

20. The method for perforating of Claim 18 wherein each one of said perforation patterns comprises a chevron shape.

21. A vertical form, fill and seal machine perforating knife comprising:

an elongate base; and

a plurality of teeth located upon said elongate base, wherein each one of said teeth forms an oblique triangular pyramid having a base, and further wherein the base of said oblique triangular pyramid is an isosceles triangle.

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22. The perforating knife of Claim 21 wherein one face of said oblique triangular pyramid has a normal vector that is parallel to said elongate base.